In the Clear

The Weather Newsletter for interior central California



National Weather Service San Joaquin Valley

Hanford, CA Fall/Winter 2012 Edition

Letter from the Editor

Brian Ochs, Spotter Newsletter Editor

I would like to take the time to express our appreciation to our Skywarn spotters because they provide information in areas where we cannot otherwise obtain it. While remote sensing (such as observations provided by automated surface observation stations, webcams, satellite, radar, etc.) is definitely helpful, the information that storm spotters can provide will always be needed. This is because we sometimes need people to provide physical ground truth that sensors and instruments cannot record while weather is actually occurring.

In the months to come, we are considering switching this spotter newsletter to a blog format. One reason for this is we can provide more up-to-date information to our spotters and also more frequently. In other words, updates as to what is going on at NWS San Joaquin Valley will be available more often than just twice or a few times a year.

More information regarding this possible change will follow in the next issue, or by the spring of 2013.

Thank you,

Brian Ochs
Skywarn Storm Spotter Newsletter Editor
NWS Forecast Office San Joaquin Valley, CA

Inside this Issue:

SKYWARN
WX6HNX

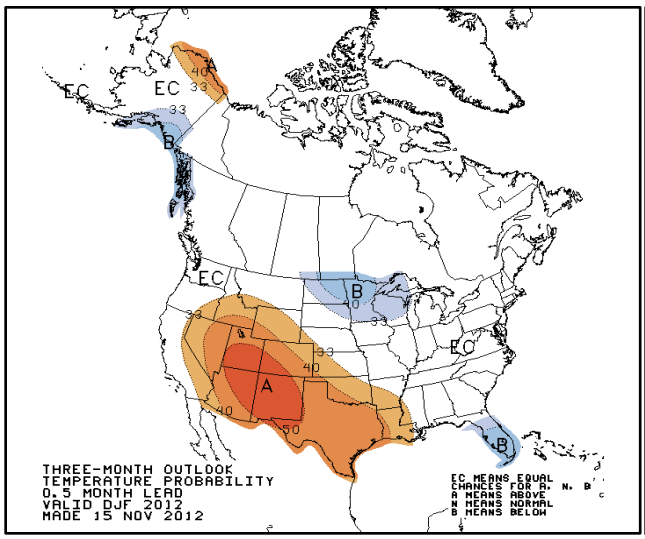
Winter is on the Way!

Brian Ochs, Meteorologist

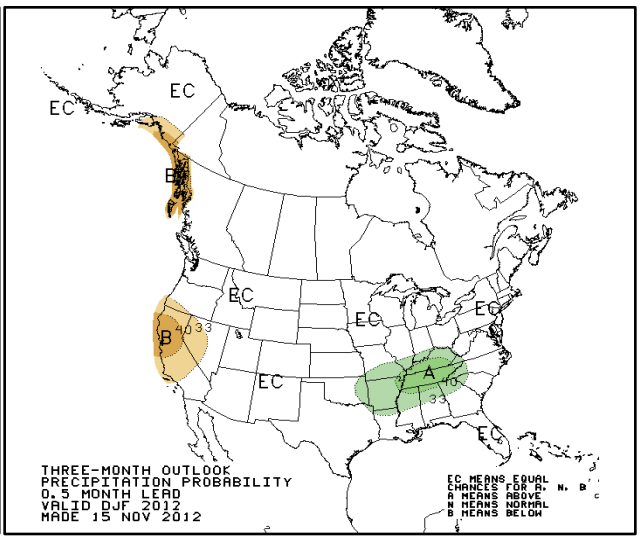
It's almost time for cooler and (hopefully) wetter weather to return. How cool and wet it will be may depend on factors at different time scales. Most of the climate models that the Climate Prediction Center, a division of the National Oceanic and Atmospheric Administration (NOAA) that provides national climate outlooks, uses to forecast El Nino or La Nina events are hinting on an ENSO-neutral winter this year. ENSO stands for El Nino Southern Oscillation; a neutral ENSO event basically means neither La Nina nor El Nino conditions. Near-average atmospheric and oceanic conditions in the tropical Pacific Ocean are expected to remain through the upcoming winter and into the spring months.

The presence of neutral ENSO does not necessarily mean a drier or wetter winter for central or northern California. Weak El Nino events are often associated with shorter time scale tropical weather patterns that are linked with more frequent tropical convective (shower and thunderstorm) activity. El Nino's occur about every two to seven years in frequency, while the more frequent patterns can occur at least once or twice per 30-60 days. The latest national temperature and precipitation outlooks from the Climate Prediction Center for December 2012 through February 2013 are provided below.

Remember to pack your winter survival kits and carry tire chains when traveling in the mountains, especially the Sierra Nevada. Examples of items to include in a winter survival kit can include the following: candles, matches, an empty coffee can water bottles, first aid kit, blankets, newspaper, and canned food or energy bars. Also, this is the time of year when dense fog can develop throughout much of the San Joaquin Valley. Remember to slow down when the visibility is low, and allow yourself plenty of distance between your vehicle and the one in front of you. Patchy fog can be the most dangerous since visibility often suddenly drops while driving on the road.



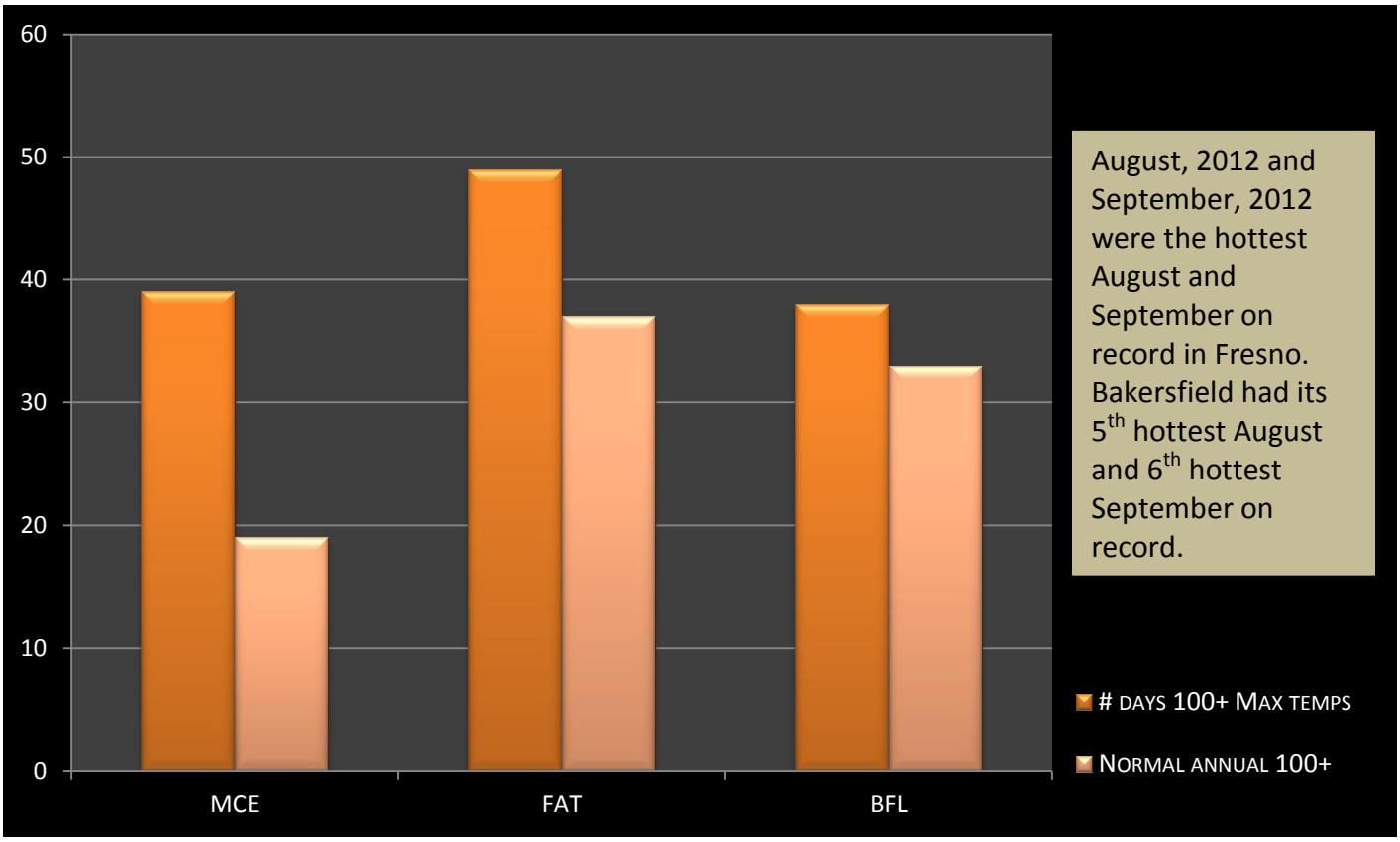
Seasonal Temperature Outlook for Dec 2012 through Feb 2013. Somewhat elevated chances for above average temperatures are projected for eastern parts of California. Otherwise, equal chances are expected for average, below average, or above average temperatures.



Seasonal Precipitation Outlook for Dec 2012 through Feb 2013. Somewhat elevated chances for below average precipitation are projected for much of the state, including interior central California. There may, however, still be brief periods of above average rain and higher elevation snowfall.

So, just how hot was the summer of 2012?

By Kevin Durfee, Meteorologist



Attention Motorists!

Need to know the latest road reports when you are traveling?
CalTrans has set up a special number to find out the status of roads.

Dial 1-800-427-ROAD.

NWS San Joaquin Valley is on Facebook and Twitter!

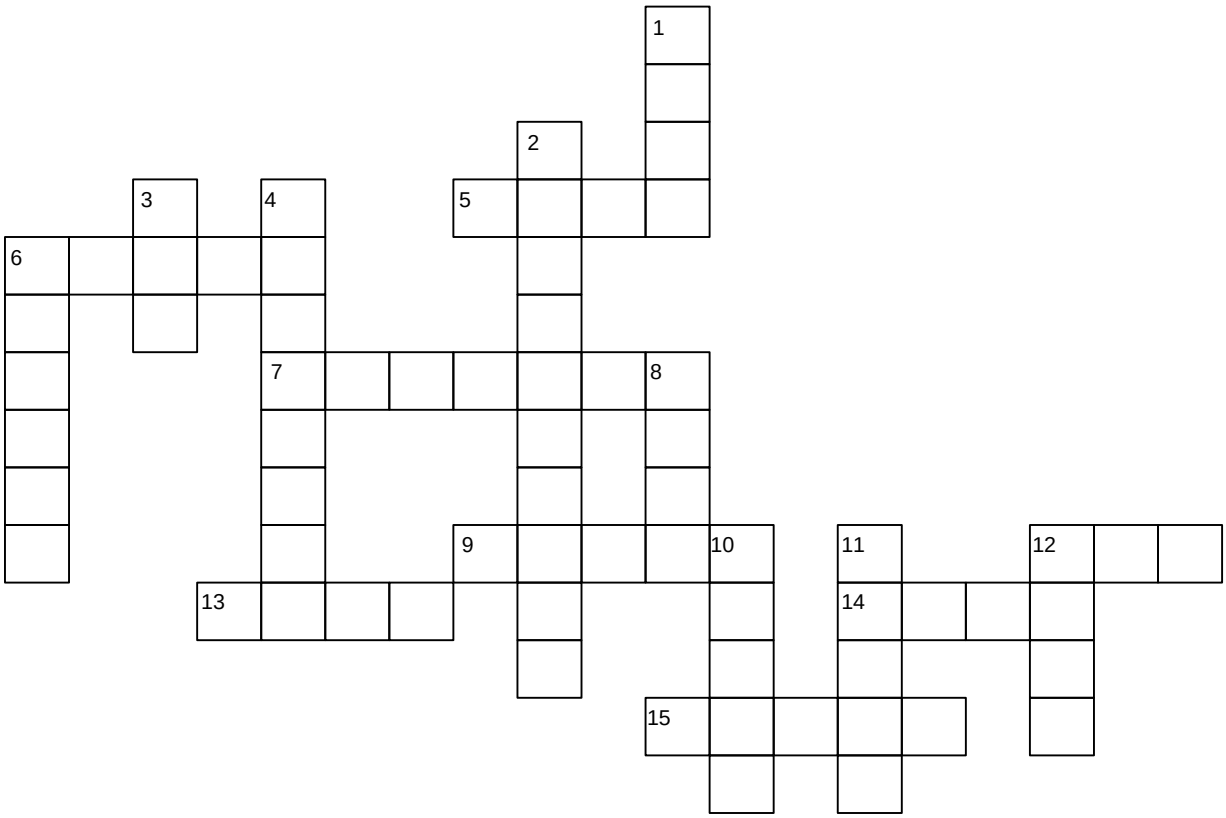
Check out the Facebook (US National Weather Service Hanford California) and Twitter (@NWSHanford) pages for the Hanford, CA forecast office. Links are below:

http://www.facebook.com/US.NationalWeatherService/Hanford.gov

https://twitter.com/NWSHanford

Weather Slogan Puzzle

Kevin Durfee, Meteorologist



ACROSS

5 Onionskin is very thin, _____winter is coming in.
6 When sea birds fly to land, there truly is a _____at hand.
7 _____at noon, more rain soon.
9 If crows fly low, _____are going to blow.
12 Red____at night, sailor's delight.
13 When a _____rings the moon or sun, rain's approaching on the run.
14 When the dew is on the grass, ____will never come to pass.
15 The sharper the _____, the sooner its past.

DOWN

1 Onionskin is thick and tough, winter will be_____and rough.
2 When_____is zero, speeding won't make you a hero.
3 When the ____gets dense, drive with common sense.
4 When windows won't open and the salt clogs the shaker, the weather will favor the _____maker.
6 A sunshiny_____won't last half an hour.
8 No weather is ill if the _____is still.
10 Mackerel scales and mare's tails make lofty ships carry low_____.
11 Clear moon, ____soon
12 Year of _____, fruit will grow.

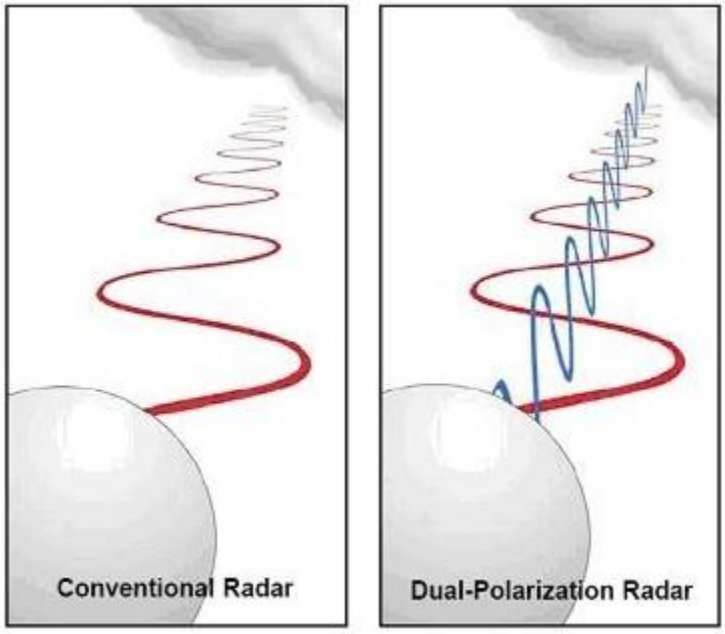
Runnin' the Numbers		Fresno			Bakersfield		
		MAY '12	JUN '12	JUL'12	MAY '12	JUN '12	JUL'12
TEMPERATURE (^{O}F)	Average Maximum	87.2	92.8	98.9	86.2	91.6	97.1
	Average Monthly	72.3	77.8	83.4	71.7	77.4	83.0
	Departure from Normal	2.2	0.6	0.4	1.2	-0.1	-0.8
	Average Minimum	57.5	62.9	67.8	57.3	63.3	68.9
	Maximum	99	109	109	97	108	106
	Date(s)	31st	17th	12th	13th	17th	13th
	Minimum	49	52	60	49	51	59
	Date(s)	5th	5th	17th, 18th	27th	6th	17th
	Number of Days Max >=90	14	21	29	11	19	29
	Number of days Min <=32	0	0	0	0	0	0
PRECIPITATION (In.)	Total	0.00	T	T	0.00	0.00	0.02
	Departure from Normal	-0.43	-0.21	-0.01	-0.18	-0.08	0.01
	Greatest in 24 hrs	N/A	T	T	N/A	N/A	0.02
	Date(s)	N/A	4th	19th	N/A	N/A	19th
	Number of days w/precip.	0	1	1	0	0	2
	Seasonal Total	8.15	8.15	T	4.93	4.93	0.02
	Departure from Normal	-3.14	-3.35	-0.01	-1.46	-1.54	0.01
	Compared to Normal (%)	72.2%	70.9%	0%	77.2%	76.2%	200%
WIND (mph)	Peak Speed	36	40	28	33	38	26
	Direction	NW	NW	NW	W	NW	NW
	Date(s)	23rd	4th	13th	25th	4th	4th, 13th
PRESS (in.)	Highest	M	M	M	M	M	30.03
	Date	M	M	M	M	M	20th
	Lowest	29.61	29.65	29.70	29.61	29.65	29.68
	Date	14th	14th	M	14th	14th	4th

Runnin' the Numbers		Fresno			Bakersfield		
		AUG '12	SEP '12	OCT'12	AUG '12	SEP '12	OCT'12
TEMPERATURE (^{O}F)	Average Maximum	102.2	96.8	81.4	100.7	94.9	80.7
	Average Monthly	86.5	81.3	69.1	87.0	80.3	68.2
	Departure from Normal	4.8	5.1	2.9	4.6	3.9	1.0
	Average Minimum	70.9	65.9	56.8	73.2	67.0	55.8
	Maximum	111	106	101	110	104	100
	Date(s)	11th	14th	2nd	6th	14th	3rd
	Minimum	60	58	45	63	58	46
	Date(s)	27th	1st, 25th	24th	27th	1st	25th
	Number of Days Max >=90	31	29	5	31	28	2
	Number of days Min <=32	0	0	0	0	0	0
PRECIPITATION (In.)	Total	T	0.00	0.25	T	T	0.02
	Departure from Normal	-0.01	-0.17	-0.38	-0.04	-0.08	-0.28
	Greatest in 24 hrs	T	N/A	0.25	T	T	0.01
	Date(s)	18th	N/A	22nd	4th	6th	22nd
	Number of days w/precip.	1	0	4	1	2	3
	Seasonal Total	T	T	0.25	T	0.02	0.04
	Departure from Normal	-0.02	-0.18	-0.55	-0.04	-0.10	-0.38
	Compared to Normal (%)	0%	0%	31.2%	0%	16.7%	9.5%
WIND (mph)	Peak Speed	24	22	26	21	23	23
	Direction	NW	S	NE	SW	W	NW
	Date(s)	6th	3rd	11th	21st	11th	3rd,11th
PRESS (in.)	Highest	M	M	30.29	M	M	30.29
	Date	M	M	13th	M	M	13th
	Lowest	29.64	29.74	29.73	29.64	29.74	29.72
	Date	11th	10th	20th	11th	10th	20th

Dual-Pol Radar is here!

Modesto Vasquez and Brian Ochs, Meteorologists

Last July, NWS San Joaquin Valley upgraded to the latest technology available for the WSR-88D radar located on site in Hanford. This technology is known as dual-pol (short for dual-polarization). Basically, how this works is the radar sends wave pulses in both the vertical and horizontal (see illustration below). This allows for more accurate sampling of objects such as clouds, raindrops, snow, hail, or some mixture of liquid and frozen precipitation; meteorologists can then better determine what form of precipitation that a storm or thunderstorm cell is producing. While the radar still does not know the difference between precipitation and other non-meteorological targets (such as wind towers, large swarms of bats or insects, and moving vehicles along major highways), the software has also been upgraded to better assist meteorologists in determining what is actually occurring. Dual-pol radar is also more helpful for estimating how heavy the rainfall can potentially be at a particular time.



The left image shows how WSR-88D radar used to send wave pulses for detecting clouds and precipitation, while the image on the right shows the dual-pol method of using both vertical and horizontal wave pulses. The radar still functions the same using the dual-polarization technology, but it now provides more information.

Climate Summaries through October 2012 are available!

Please use the following link if you would like the monthly climate summaries for the central California interior:
http://www.wrh.noaa.gov/hnx/clisum.php

Then click on the link for the month you are interested in (earliest date is January 2006).

Marc Ganey, Electronics Technician

NWS Hanford has been busy adding weather stations to fill in areas with no data coverage. Three new stations have been commissioned and are already providing valuable information to help with warnings and forecast models.

Boron

The Boron station is located at the Kern County fire station where we have had a Cooperative program rain gauge since 1959.

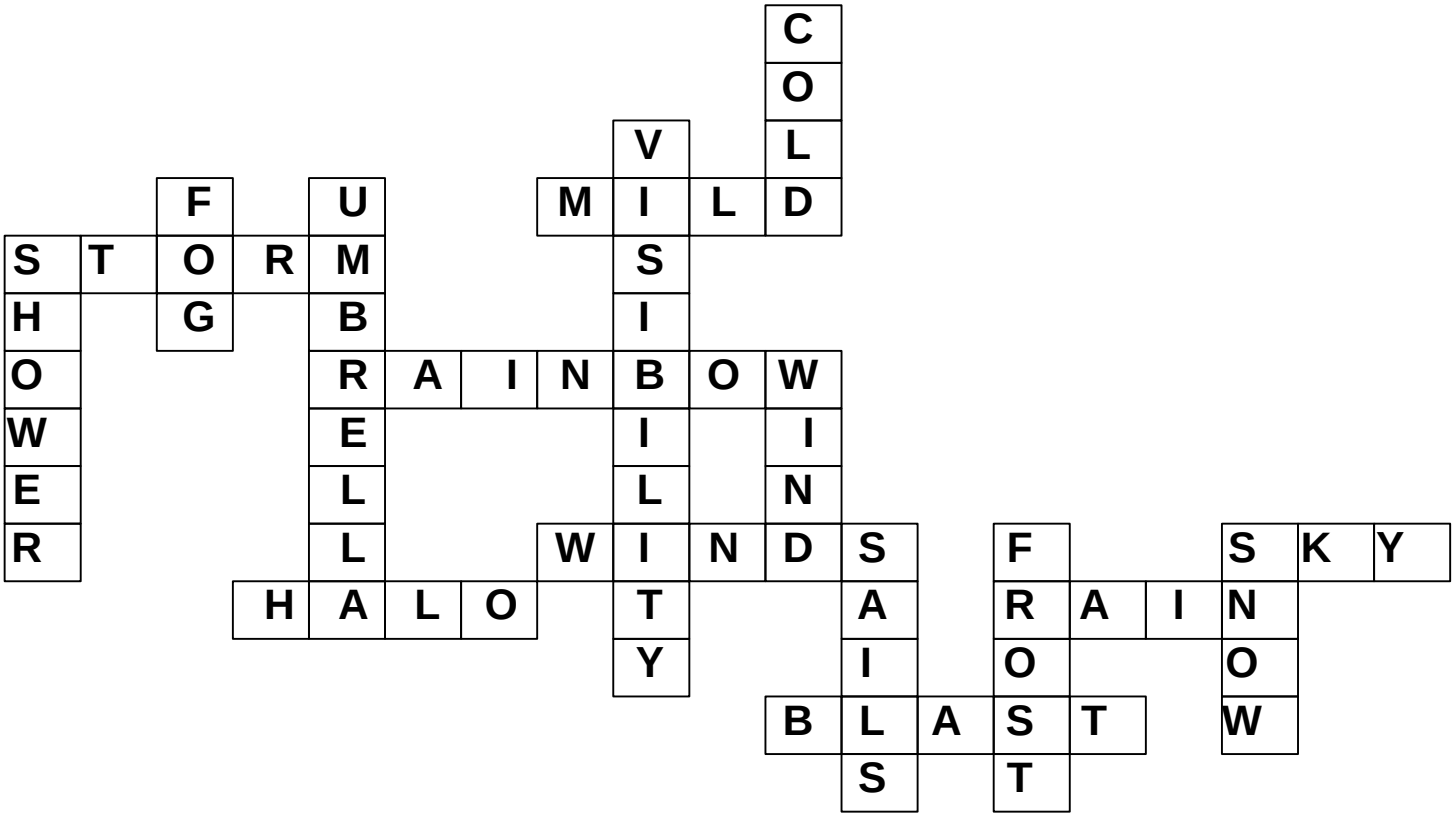
Buck Rock

Buck Rock is located on a ridgeline at 8,400 feet. It has the distinction of having a heated tipping bucket. This install was coordinated with the Turlock Radio Club and AT&T.

Mettler

The Mettler weather station is located at the Maricopa Water District office. Because of a lack of site power, this station is running completely on solar power.

Solution to Weather Slogan Puzzle (from page 4):



In The Clear is a newsletter issued by the

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